

**§ 84.119 Facepieces; eyepieces; minimum requirements.**

(a) Full facepieces shall be designed and constructed to provide adequate vision which is not distorted by the eye.

(b) All eyepieces shall be designed and constructed to be impact and penetration resistant. Federal Specification, Mask, Air Line: and Respirator, Air Filtering, Industrial, GGG-M-125d, October 11, 1965 with interim amendment-1, July 30, 1969, is an example of an appropriate standard for determining impact and penetration resistance. Copies of GGG-M-125d may be obtained from the NIOSH, Certification and Quality Assurance Branch, 1095 Willowdale Road, Morgantown, WV 26505-2888.

**§ 84.120 Inhalation and exhalation valves; minimum requirements.**

(a) Inhalation and exhalation valves shall be provided where necessary and protected against damage and distortion.

(b) Inhalation valves shall be designed and constructed to prevent excessive exhaled air from adversely affecting cartridges, canisters, and filters.

(c) Exhalation valves shall be protected against external influence, and

designed and constructed to prevent inward leakage of contaminated air.

**§ 84.121 Head harnesses; minimum requirements.**

(a) Facepieces shall be equipped with adjustable and replaceable head harnesses, designed and constructed to provide adequate tension during use and an even distribution of pressure over the entire area in contact with the face.

(b) Mouthpieces shall be equipped, where applicable, with adjustable and replaceable harnesses designed and constructed to hold the mouthpiece in place.

**§ 84.122 Breathing resistance test; minimum requirements.**

(a) Resistance to airflow will be measured in the facepiece or mouthpiece of a gas mask mounted on a breathing machine both before and after each test conducted in accordance with §§ 84.124, 84.125, and 84.126, with air flowing at a continuous rate of 85 liters per minute.

(b) The maximum allowable resistance requirements for gas masks are as follows:

MAXIMUM RESISTANCE  
[mm. water-column height]

Type of gas mask	Inhalation		Exhalation
	Initial	Final <sup>1</sup>	
Front-mounted or back-mounted (without particulate filter) .....	60	75	20
Front-mounted or back-mounted (with approved particulate filter) .....	70	85	20
Chin-style (without particulate filter) .....	40	55	20
Chin-style (with approved particulate filter) .....	65	80	20
Escape (without particulate filter) .....	60	75	20
Escape (with approved particulate filter) .....	70	85	20

<sup>1</sup> Measured at end of the service life specified in Tables 5, 6, and 7 of this subpart.

**§ 84.123 Exhalation valve leakage test.**

(a) Dry exhalation valves and valve seats will be subjected to a suction of 25 mm. water-column height while in a normal operating position.

(b) Leakage between the valve and valve seat shall not exceed 30 milliliters per minute.

**§ 84.124 Facepiece tests; minimum requirements.**

(a) The complete gas mask will be fitted to the faces of persons having varying facial shapes and sizes.

(b) Where the applicant specifies a facepiece size or sizes for the gas mask, together with the approximate measurements of faces they are designed to fit, the Institute will insure that test